



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/938,468	08/14/1996	NICK HOLT	669005.409C3	2889
22913	7590	02/10/2004	EXAMINER	
WORKMAN NYDEGGER (F/K/A WORKMAN NYDEGGER & SEELEY) 60 EAST SOUTH TEMPLE 1000 EAGLE GATE TOWER SALT LAKE CITY, UT 84111			BASHORE, WILLIAM L	
		ART UNIT		PAPER NUMBER
		2176		30
DATE MAILED: 02/10/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	08/938,468	HOLT ET AL.
	Examiner	Art Unit
	William L. Bashore	2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 9/2/2003.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 47-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 47-64 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

#### **DETAILED ACTION**

1. This action is responsive to communications: amendment, filed 9/2/2003, to the original application filed 8/14/1996 (Rule 60), IDS filed 4/21/1998.
2. This application contains the following continuation history: application 08/334,616 (now Patent No. 5,557,723); application 08/207,231 filed 3/7/1994 (abandoned); and application 07/621,444 filed 11/30/1990 (abandoned). This application claims a priority filing date of 11/30/1990.
3. The rejection of claims 47-57 under 35 U.S.C. 103(a) as being unpatentable over Texier, and Dayton has been withdrawn as necessitated by amendment.
4. The rejection of claims 58-60 under 35 U.S.C. 103(a) as being unpatentable over Texier, Dayton, and Karnik, has been withdrawn as necessitated by amendment.
5. The rejection of claims 61-64 under 35 U.S.C. 103(a) as being unpatentable over Texier and McCaskill has been withdrawn as necessitated by amendment.
6. Claims 47-64 are pending. Claims 47, 54, 56, 57, 61 are independent claims.

#### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 47-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Texier, U.S. Patent No. 5,119,476 issued June 1992, in view of Goodman, Danny (hereinafter Goodman), The Complete HyperCard Handbook, September 1987, Bantam Books, Inc. pp. 56-63, 85-183, and further in view of Dayton, Doug (hereinafter Dayton), PerForm Pro expands simple WYSIWYG form design, filling, PC Week, Volume 7, Number 39, October 1, 1990, pp. 33-35.**

In regard to independent claim 47, Texier teaches the creation of custom forms comprising a plurality of input fields representing form components, said fields display input data (Texier Abstract, column 1 lines 61-63, Figure 1). Texier also teaches zones which are equivalent to fields. said zones containing associated descriptions and behaviors (Texier Figure 1 items P1-P7, column 6 lines 46-56, also column 8 lines 1-12). Texier also teaches a set of functions which are associated with an active zone (a form input field), the filling of said zone with data can be interpreted as a default (standard) behavior of said input field (Texier column 2 lines 8-15) (compare the above with claim 47 "*A data processing system for displaying and receiving...the data processing system comprising:*".

Texier teaches a form control procedure (transaction event processor) to implement various procedures associated with certain fields of a customized form, said procedures stored as data code (data structures) (Texier Figure 1 items P1-P7, column 6 lines 46-56, also column 8 lines 1-12), as well as teaching generation of forms, allowing for modifications (customizations) and usage by an author (a user), as well as said forms being evolutionary for programmers to create forms, generating/redesigning forms accordingly (Texier column 1 lines 50-59, column 2 lines 57-61). Texier's invention is based upon program instruction descriptions (i.e. LISP, PROLOG commands/data structures which act to preserve field placement, see Texier column 3 lines 64-68 to column 4 lines 1-7, Figure 1, P1-P5, and menus at top of said figure). Texier does not specifically teach a data structure having a data description of the fields (including field placement). However, Goodman teaches HyperCard, a graphics based form designer. Goodman teaches creation of card stacks, whereby a user can customize each card via menus for creating fields, as well as lines, boxes, etc. (Goodman p.91 – especially item "Field Info...", also pp.130-131). Fields can be created, edited, cloned, positioned, and assigned scripts to, accordingly (Goodman pp. 59-61, 149-151 – especially p.151 at middle, regarding "Field Info dialog box", also p.154-155). The above teachings can be interpreted as data descriptions of form fields (within cards), preserving spatial placement. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Goodman to the data structures and menus of Texier, providing Texier a more user friendly graphical

method of creating and editing forms (compare the above with claim 47 “*means for storing a form data structure for each of...the behavior of the form indicates operations associated with the form;*”).

Texier teaches forms being evolutionary for programmers to create forms, generating/redesigning forms accordingly (Texier column 1 lines 50-59, column 2 lines 57-61). Since Texier’s form procedures are associated with a form display (i.e. Texier Figure 1), the selection of said form indicates the selection of said assigned procedures as well. Texier also teaches receiving input from a user (Texier Figure 1) (compare with claim 47 “*means for selecting one of the plurality of forms; means for retrieving the form data structure for the selected form; means for receiving input from a user of the computer system;*”).

Texier teaches a form control procedure for executing a selected custom behavior subsequent to user input (validation) (Texier Figure 1 item P7, also Figure 3; compare with claim 47 “*means for, in response to receiving the user input, invoking....performs a custom behavior for the fields of the form,*”).

Texier does not specifically teach providing a plurality of user defined operations associated with form fields. However, Dayton teaches PerForm Pro, a form creation tool comprising Form Designer for constructing forms using objects on a menu driven work area, and a toolbox to customize forms. (Dayton p.33 Summary, at 1, also p.34 at 2 and 3; compare with claim 47 “*the custom behavior indicating user-defined operations associated with the fields of the form*”). It is noted that Dayton’s toolbox provides various user selectable options (tools) to customize a form. It is also noted that each tool in said toolbox has default features that can be modified (defined) to help customize said form, including creating text, graphics fields, and boxes, said tools helping to create forms associated with input data (Dayton p.33 Summary, at 1, also p. 34 at 2, 3, 4, and 5). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Dayton to Texier, because of Dayton’s taught advantage of selectable defined form design options, providing a user of Texier the advantage of visually choosing selections to customize Texier’s input form (including data entry portions) from a toolbox set of design options.

Texier teaches zones which are equivalent to input fields, said zones containing associated descriptions and behaviors. as well as a form control procedure to implement a procedure associated with certain fields, a common and known behavior (a standard behavior) for a form field is the capability of accepting entered user

data (Texier Figure 1, items P1-P7, Figure 3, column 6 lines 46-56, also column 8 lines 1-12). It is noted that Texier teaches various input fields subject to validation, the standard operation of data input is performed as long as validation is not performed (compare with claim 47 "*means for performing the standard behavior for the fields of the form when custom behavior is not performed;*"").

The limitation of a user input data structure would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Texier, because Texier teaches data input into form fields (Texier Figure 1), the input is usually stored in data structures (i.e. temporarily in input buffers, or into strings) ready for presentation, providing the benefit of input data display to visually check for errors (compare with claim 47 "*means for packing the user input....to present the user input; and means for presenting user input from the input data structure....for displaying the user input.*"").

**In regard to dependent claim 48,** Texier teaches a form containing a plurality of input fields said input fields can be assigned to various procedures (i.e. validation, font, etc.). Since Texier's form procedures are associated with a form display (i.e. Texier Figure 1), the selection of said form indicates the selection of said assigned procedures (form control procedures) as well. (Texier Figure 1, 3).

**In regard to dependent claim 49,** Texier teaches an "EXIT" button, which can be interpreted as an additional standard behavior (clearing, or saving data input) (Texier Figure 1 item P6). The input data can be exited before it is validated via Texier Figure 1 item P7.

**In regard to dependent claims 50, 51,** Texier teaches a form with an active field triggering a validation event subsequent to user input of data into said field. The EXIT operation is suppressed (as well as altering input data) once validation commences (Texier Figure 1, column 2 lines 8-15).

**In regard to dependent claim 52,** Texier teaches a user invoking a VALIDATION request after a standard operation (i.e. accepting user data input) is accepted into memory (Texier Figure 1).

**In regard to dependent claim 53,** Texier teaches validation (a form control procedure) of the fields on a form (Texier Figure 1). Texier teaches Validation of inputted user data in each field. When all fields are full, the system prevents any more input (standard input operation ceases).

**In regard to independent claim 54,** claim 54 reflects the computer readable methods comprising computer readable instructions used for implementing the system as claimed in claim 47, and in further view of the following, is rejected along the same rationale.

The limitation of overriding standard behavior would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Texier, because Texier teaches validation of user input (a custom behavior) (Texier Figure 1). Typically, once validation commences, the system no longer accepts changes to the submitted input (the standard operation of accepting/changing data is overridden), until validation ends, providing the benefit of preventing changes while validating a portion of data (compare with claim 54 “*so the form control procedure can override the standard behavior of the field*”).

**In regard to dependent claim 55,** Texier teaches a form containing a plurality of input fields said input fields can be assigned to various procedures (i.e. validation, font, etc.). Since Texier’s form procedures are associated with a form display (i.e. Texier Figure 1), the selection of said form indicates the selection of said assigned procedures (form control procedures) as well. (Texier Figure 1, 3).

**In regard to independent claim 56,** claim 56 incorporates substantially similar subject matter as claimed in claim 54, and is rejected along the same rationale.

**In regard to independent claim 57,** claim 57 incorporates substantially similar subject matter as claimed in claim 54, and is rejected along the same rationale.

9. **Claims 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Texier, Goodman, and Dayton, as applied to claim 57 above, and further in view of Karnik, U.S. Patent No. 5,404,294 issued April 1995.**

In regard to dependent claims 58, 59, 60, Texier teaches the creation of a form header (Texier column 3 lines 42-43). Texier does not specifically teach a primary key. However, Karnik teaches a primary key (Karnik column 5 lines 53-57; compare with claim 58 "*a primary key*"). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Karnik to Texier, because of Karnik's taught advantage of primary keys, providing a way to link the forms of Texier to a database.

Texier teaches the creation of form flags, and form coordinates specifying the appearance, position, and size of a window (Texier column 4 lines 16-23; compare with claim 58 "*form flags*", and "*form coordinates for specifying the position and size of the window*").

Texier teaches a character string for use as a form title (Texier Figure 1 item EMPLOYEE INFORMATION, also column 4 line 23; compare with claim 3 "*a character string for use as a form title*").

Texier does not specifically teach primary/secondary keys, or a unique identifier for a field. However, Karnik teaches a tag with a unique set of properties, and can act as a key to an attached set of properties (Karnik column 2 lines 50-55). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Karnik to Texier, because of Karnik's taught advantage of keys, providing a way to link the forms of Texier to a database.

Texier teaches the creation of a field type and field attributes (Texier column 6 lines 46-56).

Texier teaches field placement (Texier Figure 1 item P1-P7). It is known in the art that a location of an object on a computer screen is referenced by position coordinates.

Texier teaches font characteristics (Texier Figure 1 items P1-P7, also Figure 2; compare with claim 4 “*font characteristics of the field*”).

The storage of computer code (i.e. a diskette, hard drive, or computer RAM memory) for implementing computer programs, is known in the art, therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention to use such storage, providing the benefit of future use.

10. **Claims 61-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Texier, in view of Goodman, and further in view of McCaskill et al. (hereinafter McCaskill), U.S. Patent No. 5,121,499 issued June 1992.**

In regard to independent claim 61, Texier teaches the creation of custom forms comprising a plurality of input fields representing form components, said fields display input data (Texier Abstract, column 1 lines 61-63, Figure 1). Texier also teaches zones which are equivalent to fields. said zones containing associated descriptions and behaviors (Texier Figure 1 items P1-P7, column 6 lines 46-56, also column 8 lines 1-12). Texier also teaches a set of functions which are associated with an active zone (a form input field), the filling of said zone with data can be interpreted as a default (standard) behavior of said input field (Texier column 2 lines 8-15) (compare the above with claim 61 “*A method in a data processing system....comprising the steps of:*”).

Texier teaches a form control procedure (transaction event processor) to implement various procedures associated with certain fields of a customized form, said procedures stored as data code and comprising descriptions (Texier Figure 1 items P1-P7, column 6 lines 46-56, also column 8 lines 1-12), as well as teaching generation of forms, allowing for modifications (customizations) and usage by an author (a user), as well as said forms being evolutionary for programmers to create forms, generating/redesigning forms accordingly (Texier column 1 lines 50-59, column 2 lines 57-61). Texier’s invention is based upon program instruction descriptions (i.e. LISP, PROLOG commands/data structures which act to preserve field placement, as well as provide an operational menu (see Texier column 3 lines 64-68 to column 4 lines 1-7, Figure 1, P1-P5, and menus at top of said figure). Texier does not specifically teach a data description of the fields (including field placement).

However, Goodman teaches HyperCard, a graphics based form designer. Goodman teaches creation of card stacks, whereby a user can customize each card via menus for creating fields, as well as lines, boxes, etc. (Goodman p.91 – especially item “Field Info...”, also pp.130-131). Fields can be created, edited, cloned, positioned, and assigned scripts to, accordingly (Goodman pp. 59-61, 149-151 – especially p.151 at middle, regarding “Field Info dialog box”, also p.154-155). The above teachings can be interpreted as data descriptions of form fields (within cards), preserving spatial placement. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Goodman to the data structures and menus of Texier, providing Texier a more user friendly graphical method of creating and editing forms (compare the above with claim 61 “*retrieving a data description....at the data processing system?*”).

Texier teaches forms being evolutionary for programmers to create forms, generating/redesigning forms accordingly (Texier column 1 lines 50-59, column 2 lines 57-61). Since Texier’s form procedures are associated with a form display (i.e. Texier Figure 1), the selection of said form indicates the selection of said assigned procedures as well. Texier also teaches receiving input from a user (Texier Figure 1) (compare with claim 61 “*displaying the custom....under the control of the form control procedure,*”).

Texier teaches a form control procedure for executing a selected custom behavior subsequent to user input (validation) (Texier Figure 1 item P7, also Figure 3; compare with claim 61 “*performing a custom behavior for the field to which the data is directed....*”).

Texier does not specifically teach said custom behavior including modifying the display of a field other than the field to which data is directed. However McCaskill teaches a spreadsheet (a type of customizable input form), which incorporates a custom “next cell” feature. McCaskill Figure 2, item 5, shows display highlighting of a cell to which data is directed. A next cell position can be determined by a user at Figure 3 via drop down menu, resulting in highlighting of a designated next active cell when triggered (Figure 4, item 10) (see also McCaskill column 2 lines 32-37, column 3 lines 27-29, 34-51, 62-67, column 4 lines 44-47) (compare with claim 61 “*...the custom behavior including modifying the display of a field other than the field to which the data is directed*”). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply McCaskill to Texier, providing Texier the benefit of directing users along a clear path of input steps.

Texier teaches zones which are equivalent to input fields, said zones containing associated descriptions and behaviors. as well as a form control procedure to implement a procedure associated with certain fields, a common and known behavior (a standard behavior) for a form field is the capability of accepting entered user data (Texier Figure 1, items P1-P7, Figure 3, column 6 lines 46-56, also column 8 lines 1-12). It is noted that Texier teaches various input fields subject to validation, the standard operation of data input is performed as long as validation is not performed (compare with claim 61 "*returning an indication....the data is directed*", and "*when the returned indication....the data is directed.*").

**In regard to dependent claims 62-64,** Texier teaches a validation button, to which a user can validate displayed input field data a plurality of times (re-invoking a control procedure) (Texier Figure 1).

The use of data structures for holding computer program data for present and/or future use is known in the art.

#### *Response to Arguments*

11. Applicant's arguments filed 9/2/2003 have been fully and carefully considered but they are not persuasive.

Upon further consideration, the examiner retains the art of record at the present time, and has introduced a new reference to teach Applicant's amendment, which significantly changes the scope of the claimed limitations when interpreted as a whole. Applicant's arguments are substantially directed to amended subject matter, which is currently taught by newly cited reference Goodman (HyperCard).

#### *Conclusion*

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Bashore whose telephone number is **(703) 308-5807**. The examiner can normally be reached on Monday through Friday from 11:30 AM to 8:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild, can be reached on **(703) 305-9792**.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is **(703) 305-3900**.

14. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703-872-9306)** (for formal/after-final communications intended for entry)

**Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA, Fourth Floor (Receptionist).**

William L. Bashore  
Patent Examiner, AU 2176  
February 8, 2004



**SANJIV SHAH  
PRIMARY EXAMINER**